

SCIENCE (PHYSICS)

Eureka!

SUBJECT: Physics
GRADES: 5-10
NUMBER OF SERIES: 30 Programs
MINUTES: 5 minutes (TVC)
OTHERS: Videotape and
 replay rights yearly; RETAC

CHANNEL: 12
DATE AND TIME: Tues. 1:45 pm
 Weds. 11:00 am

SUMMARY: Eureka! takes a simple and direct approach to the subject of physics. The programs feature comedian Billy Van narrating an explanation of the basic concepts, while cartoon characters and a variety of animated objects demonstrate the principles involved. Constant reinforcement makes the message clear, and physics becomes entertaining, even easy.

Title: *Inertia*
 Program Description:
 First law of physics.
 Week of: 9/11
 Program No: 1

Title: *Mass*
 Program Description:
 How it's measured and
 how it's different from
 size.
 Week of: 9/18
 Program No: 2

Title: *Speed*

Program Description:
 In the inertia-mass
 relationship
 Week of: 9/25
 Program No: 3

Title: *Acceleration 1*
 Program Description:
 Of a bicycle and a ball
 player.
 Week of: 10/2
 Program No: 4

Title: *Acceleration 2*

Program Description:
 Of a locomotive:
 operation
 and calculation.
 Week of: 10/9
 Program No: 5

Title: *Gravity*
 Program Description:
 Falling apples and
 measurement units.
 Week of: 10/16
 Program No: 6

Title: *Weight vs. Mass*
 Program Description:
 The difference:
 constancy of mass.
 Week of: 10/23
 Program No: 7

Title: *Work*
 Program Description:
 Defined with help of
 circus strongperson
 and clown.
 Week of: 10/30
 Program No: 8

Title: *Kinetic Energy*
 Program Description:
 Motion of animated
 billiard balls.
 Week of: 11/6
 Program No: 9

Title: *Potential Energy*
 Program Description:

Rock on edge of cliff:
 energy of position.
 Week of: 11/13
 Program No: 10

(Call in only)
 Week of: 11/20

Title: *The Inclined
 Plane*
 Program Description:
 Increased distance for
 decreased force.
 Week of: 11/27
 Program No: 11

Title: *The Lever*
 Program Description:
 Demonstrations.
 Week of: 12/4
 Program No: 12

Title: *The Mechanical
 Advantage & Friction*
 Program Description:
 Inclined plane and lever.
 Week of: 12/11



SCIENCE (PHYSICS)

Eureka! (Cont'd.)

Program No: 13

Title: *The Screw & the Wheel*

Program Description:
Offspring of plane and lever.
Week of: 1/8
Program No: 14

Title: *The Pulley*

Program Description:
Works to lift a heavy objects
Week of: 1/15
Program No: 15

Title: *Molecules in Solids*

Program Description:
Three states of matter.
Week of: 1/22
Program No: 16

Title: *Molecules in Liquids*

Program Description:
Molecular changes from solid to liquid.
Week of: 1/29
Program No: 17

Title: *Evaporation & Condensation*

Program Description:
The process.
Week of: 2/5
Program No: 18

Title: *Expansion & Contraction*

Program Description:
Hotter means faster.
Week of: 2/12
Program No: 19

Title: *Measuring Temperatures*

Program Description:
Anders Celsius uses mercury.
Week of: 2/19
Program No: 20

Title: *Temperature vs. Heat*

Program Description:
Heat, the quantity of hotness, from the mass and speed of molecules
Week of: 2/26
Program No: 21

Title: *Atoms*

Program Description:
Volume Description:
The stuff of molecules.
Week of: 3/5
Program No: 22

Title: *Electrons*

Program Description:
Whizzing layers around the nucleus.
Week of: 3/12
Program No: 23

Title: *Conduction*

Program Description:
Heated molecules vibrate and act like dominoes.
Week of: 3/19
Program No: 24

Title: *Volume and Density*

of space enveloped by an object.
Week of: 3/26
Program No: 25

Title: *Buoyancy*

Program Description:
The principles.
Week of: 4/2
Program No: 26

Title: *Convection*

Program Description: Heat transfer from buoyancy.
Week of: 4/23
Program No: 27

Title: *Heat vs. Energy*

Program Description: Motion, friction and heat.
Week of: 4/30
Program No: 28

(Call in only)

Week of: 4/9
Program No:

Title: *Radiation Waves*

Program Description:
How heat energy moves.
Week of: 5/7
Program No: 29

Title: *The Radiation Spectrum*

Program Description: Waves of heat energy from the sun.
Week of: 5/14
Program No: 30



SCIENCE (TECHNOLOGY/CAREER)

Exploring Technology Education

SUBJECT: Social Science/Technology/Careers
GRADES: 5 - 9
NUMBER OF SERIES: 19 Programs
MINUTES: 15 minutes , Closed Captioned (AIT, 1990)
OTHERS: Videotape and
replay rights yearly; RETAC (State buy)
CHANNEL: 8
DATE AND TIME: Thurs. 10:30 am
Fri. 11:45 am

SUMMARY: *Exploring Technology Education* helps build the technology literacy vital for current and future careers. The series takes students to places where technology is changing the way we work. Students visit the headquarters of USA Today, where technology has changed how a newspaper is designed and produced; to Australia, where solar-powered cars race across the desert; underwater, where students in diving masks build structures to simulate conditions in space; and to building sites, where schools and houses incorporate the latest in subsystem and finishing technology. *A 17-minute orientation program is available by call-in.*

Title: *Overview of Technology*

Program Description: Shows how developments of the past lead to those of the future. A drummer from a rock group uses technology to replace an arm lost in a car crash. The original construction and later restoration of the Statue of Liberty reveal developments in technology.

Week(s) of: 9/11
Program No: 1

Title: *People, Technology and the Environment*

Program Description: Choices we make about technology have both benefits and risks, and

involve complex social and environmental problems. Atomic power and the car have both had profound effects.

Week(s) of: 9/18
Program No: 2

Title: *Introduction to Communication*

Program Description: Focuses on the impact of communication technology throughout history, as people have tried to send messages faster and over greater distances. A blind and deaf woman using an electronic braille writer and astronauts on the moon indicate communications methods that link us together.

Week(s) of: 9/25
Program No: 3

Title: *Designing Messages*

Program Description: By featuring the design of a newspaper, the program presents three considerations for designing a message - audience, content and form - and demonstrates the elements of good design. A visit to USA Today illustrates how feedback can influence content and form.

Week(s) of: 10/2
Program No: 4

Title: *Producing and Transmitting Messages*

Program Description: A visit to USA Today shows the central role of computers in preparing and transmitting information. Typesetting, laser scanning for color pictures and transmission by facsimile scanners all make use of digital signals so that identical papers can be printed simultaneously across the country.

Week(s) of: 10/9
Program No: 5

SCIENCE (TECHNOLOGY/CAREER)

Exploring Technology Education (Cont. d)

Title: *Evaluating Messages*

Program Description: Illustrates the importance of feedback with shots of the SETI antenna, a collision with the Empire State Building, the Apollo 13 flight, Boy Scouts using modems and a DJ from a rock radio program. Technology makes feedback and communication even faster.

Week(s) of: 10/16

Program No: 6

Title: *Introduction to Construction*

Program Description: Shows different types of construction, their development and their relation to society and the environment. It also introduces residential, civil and commercial construction projects. The systems model is applied to the construction of an airport and a middle school.

Week(s) of: 10/23

Program No: 7

Title: *Designing and Planning a Structure*

Program Description: Design and planning processes are involved in construction and may make the difference between a successful project, such as the Golden Gate Bridge, and an unsuccessful design, the Tacoma Narrows bridge. Students building bridges use a systems model approach.

Week(s) of: 10/30

Program No: 8

Title: *Building a Structure Safely*

Program Description: Shows the steps in preparing the foundation of a new house: site preparation and survey, building a footing, laying down floor joists, sub-floor and framing walls.

Week(s) of: 11/6

Program No: 9

Title: *Finishing a Structure*

Program Description: The subsystems (heating, cooling, plumbing and electrical) are installed. The program shows the processes, materials and techniques needed to finish a structure.

Week(s) of: 11/13

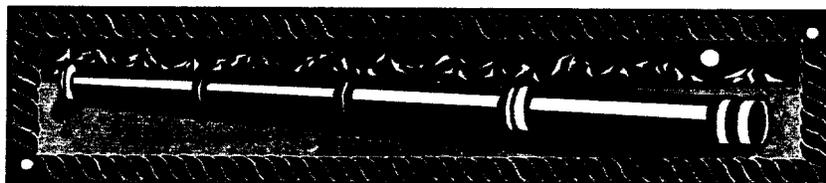
Program No: 10

(Call in only)

Week(s) of: 11/20

Title: *Introduction to Manufacturing*

Program Description: Illustrates the evolution, development and impact of manufacturing technology, including its systems, components and relationships to other systems. Robotics has brought about a second revolution in manufacturing. Viewers



SCIENCE (TECHNOLOGY/CAREER)

Exploring Technology Education (Cont. d)

visit a plant where compact discs are made.

Week(s) of: 11/27

Program No: 11

Title: *Manufacturing Systems*

Program Description: Introduces intermittent, continuous and custom .

Week(s) of: 12/4

Program No: 12

Title: *Using and Evaluating Materials*

Program Description: Emphasizes the importance of the right choice.

Week(s) of: 12/11

Program No: 13

Title: *Manufacturing Process*

Program Description: Introduces six manufacturing processes: separating.

Week(s) of: 1/8

Program No: 14

Title: *Manufacturing Process*

Planning

Program Description: To stay ahead of the competition.

At a greeting card publisher, a committee must plan new card lines and designs.

Week(s) of: 1/15

Program No: 15

Title: *Overview of Energy*

Program Description: Defines energy and shows its sources, forms, technological

advances, uses and impact on society and the environment. Considers exhaustible, renewable and inexhaustible sources of energy.

Week(s) of: 1/22

Program No: 16

Title: *Conversion of Energy into Power*

Program Description: Demonstrates forms of energy, conversion of one form into another, and all forms as sources of power. Examples are shown of thermal, chemical, radiant, electrical and nuclear energy. Viewers visit a coal-fired electrical plant.

Week(s) of: 1/29

Program No: 17

Title: *Transmission, Control and Storage of Power*

Program Description: The four storage and transmission systems - mechanical, fluid, electrical and thermal - are demonstrated by a model blimp and fighter planes on an aircraft carrier. Electrical, fluid, thermal and mechanical systems are used to store power.

Week(s) of: 2/5

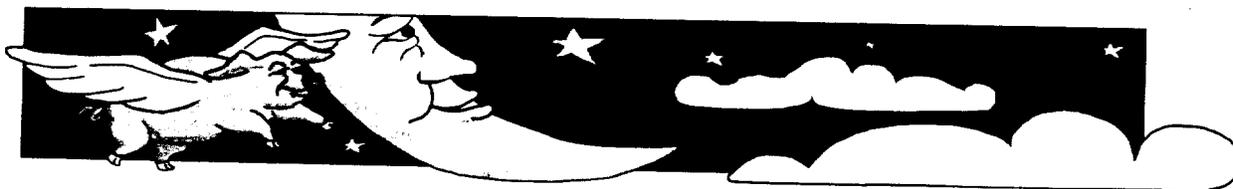
Program No: 18

Title: *Transportation Systems*

Program Description: Presents different kinds of transportation systems and network.

Week(s) of: 2/12

Program No: 19



SCIENCE (MATH/CAREERS)

Futures²

SUBJECT: Math/Science/Careers
GRADES: 7 +
NUMBER OF SERIES: 12 Programs
MINUTES: 15 minutes. Closed Captioned (FASE, 1993)
OTHERS: Videotape and
replay rights yearly: RETAC (State buy)

CHANNEL: 10
DATE AND TIME: Tues. 10:45 am
Fri. 2:00 pm

SUMMARY: This series links classroom mathematics and science to exciting and rewarding careers. Through classroom scenes with Jaime Escalante and hundreds of filmed on-the-job interviews with professionals, technicians, researchers, designers and others, students are able to focus on how widely math and science are used in the real world.



ITV Link: *Trade Offs*

Title: *Animal Care*

Program Description: The science of animal care has become one of high-tech efficiency. Mathematics is a vital link in the continuation of many of our endangered species.

Week of: 1/22
Program No: 1

Title: *Fitness and Physical Performance*

Program Description: Dietetics, nutrition and biomechanics are fast growing careers! Injury treatment, orthopedics, prosthetics research and even space medicine are in this episode.

Week of: 1/29
Program No: 2

Title: *Renewable Energy*

Program Description: Photovoltaics? Geothermal? Biomass? Ed Begley, Jr., an alternative energy enthusiast, discusses how algebraic equations and mathematics in general are the keys to fascinating new technologies.

Week of: 2/5
Program No: 3

Title: *Environmental Science and Technology*

Program Description: This episode goes beyond recycling into solar detoxification, biodiversity and debt swap for nature. The math concepts of inequalities apply to all aspects of this field.

Week of: 2/12
Program No: 4

Title: *Graphic Design*

Program Description: We are virtually bombarded every waking minute of our lives by graphic design. Graphic designer Roland Young demonstrates the role of symmetry and scale with visits to USA TODAY, Disney World and MTV.

Week of: 2/19
Program No: 5

Title: *Industrial Design*

Program Description: Products like watches, televisions, wheelchairs and glasses don't just wind up the way they are. Syd Mead, industrial designer and *visual futurist*, demonstrates how geometric shapes and proportions are applied to every design.

Week of: 2/26
Program No: 6

Title: *Future Habitats*

Program Description: A space hotel by the year 2020? Life on a lunar landing station? The math and science skills acquired at this stage in teenagers' lives may well be their passport to the stars.

Week of: 3/5
Program No: 7

SCIENCE (MATH/CAREERS)

Futures² (Cont'd.)

Title: *Advanced Transportation*

Program Description: Designing and engineering transportation systems of the future will require rocket scientists and engineers. Col. Guy Bluford, an astronaut, pilot and engineer, discusses both absolute value and the facts and fancies of future travel.

Week of: 3/12

Program No: 8

Title: *Personal Communications*

Program Description: Personal communications beyond phones and electronic gadgets encompasses microchip technology, geo and low orbit satellites and fiber optics. Astronaut Dr. Ellen Ochoa shows how symbols and operations with positive and negative numbers apply to personal communications.

Week of: 3/19

Program No: 9

Title: *Mass Communications*

Program Description: How can millions of people simultaneously watch the Superbowl, ABC's *Nightline* or a basketball game? The answer involves the technology of three-dimensional coordinate systems, and its language--mathematics.

Week of: 3/26

Program No: 10

Title: *Meteorology*

Program Description: Weatherman Spencer Christian looks at meteorology and the highs-lows of positive and negative numbers. Visit hurricane specialists, tornado chasers, lightning experts, climate and space scientists.

Week of: 4/2

Program No: 11

Title: *Ocean Exploration*

Program Description: Ocean drilling, arctic sprays and treasure hunting are featured. The functional relationship of pressure to depth affects everything, from man's ability to probe the depths to the very shape and size of their inhabitants.

Week of: 4/23

Program No: 12



CURRICULAR LINKS:

Internet links:

<http://www.panda.org/livingwaters> - A site advocating environmental conservation. The site has a specific section on ocean, wildlife, and forest conservation.

<http://www.field-guides.com/occank/occank.htm>

Virtual field trips are designed to provide students with a sound online educational learning experience. These field trips (web tours) take students to some of the top web resources. Site includes virtual field trips on volcanoes, hurricanes, etc.

SCIENCE (HEALTH)

Head to Toe

SUBJECT: Science (Health)
GRADES: 1 - 2
NUMBER OF SERIES: 15 Programs
MINUTES: 15 minutes (AIT, 1993)
OTHERS: Videotape and replay rights
yearly: RETAC (State buy)

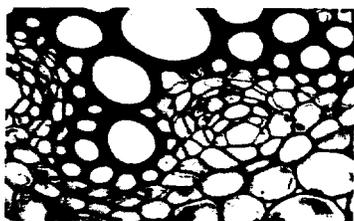
CHANNEL: 8
DATE AND TIME: Mon. 9:15 am
Thurs. 1:00 pm

SUMMARY: Head to Toe is an update of the *All About You* series and appeals to children's curiosity about the marvelous mechanics of their bodies. The series helps children in early elementary grades to understand the workings of the human body and to acquire the knowledge, attitudes, and practices necessary for achieving and maintaining good health.



Title: *In the Beginning*
Program Description: Describes the way new lives begin in human beings and animals.
Week of: 9/11
Program No: 1

Title: *Cells...Your Starting Place*
Program Description: Explains how cells are the basic building blocks of all living things.
Week of: 9/18
Program No: 2



Title: *In a Heartbeat*
Program Description: Explains how the heart and blood work and about activities that hurt or help the heart.
Week of: 9/25
Program No: 3

Title: *Muscles...Holding You Together*
Program Description: Describes the role muscles play in the body and their need for exercise.
Week of: 10/2
Program No: 4

Title: *Standing Tall*
Program Description: Focuses on the functions and care of the skeleton, bones, and joints.
Week of: 10/9
Program No: 5

Title: *Fueling Up*
Program Description: Shows how the body digests food and uses it for fuel. It also tells about the five food groups.
Week of: 10/16
Program No: 6

Title: *From Fuel to Waste*
Program Description: Shows the way the body makes and disposes of solid and liquid waste.
Week of: 10/23
Program No: 7

Title: *Fresh Air*
Program Description: Illustrates how the lungs get oxygen and how to keep the lungs healthy.
Week of: 10/30
Program No: 8



SCIENCE (HEALTH)

Head to Toe (Cont'd.)

Title: *Control Center*

Program Description: Describes the brain and the five senses that it controls--sight, hearing, smell, taste, and touch. It also explains how the brain is protected.

Week of: 11/6

Program No: 9

Title: *Fighting Germs and Diseases*

Program Description: Shows how germs enter the body to cause illness and what children can do to stay free of disease.

Week of: 11/13

Program No: 10

(Call in only) 11 20

Title: *Sounds*

Program Description: Tells why ears can hear sounds and how loud sounds can damage the ears.

Week of: 11/27

Program No: 11

Title: *Sights*

Program Description: Explains how the eyes work and how they are protected.

Week of: 12/4

Program No: 12



QUOTE: The voyage of discovery is not in seeking new landscapes but in having new eyes.
-- *Marcel Proust*

Title: *A Healthy Smile*

Program Description: Explains how and why children lose their baby teeth and what they can do to keep their teeth healthy.

Week of: 12/11

Program No: 13

Title: *Staying Healthy*

Program Description: Focuses on the expanding abilities of early elementary children and their need to choose activities that promote health.

Week of: 1/8

Program No: 14

Title: *Safety First*

Program Description: Shows how to keep safe both at home and away from home.

Week of: 1/15

Program No: 15



CURRICULAR LINKS:

Internet links:

<http://kidshealth.org/teen> - Kids Health Site.

Reliable, up-to-date information on health, nutrition, fitness, and emotional issues of concern to pre-teens and teens.

<http://www.ada.org/consumer/kids/index.html>

Information about topics related to dental health for kids and teens.

SCIENCE (LANGUAGE ARTS)

Here's How!

SUBJECT: Language Arts/Science
GRADES: 1 - 3
NUMBER OF SERIES: 20 Programs
MINUTES: 10 minutes (TVO, 1991)
OTHERS: Videotape and replay rights
yearly: RETAC (State buy)

CHANNEL: 10
DATE AND TIME: Mon. 10:30 am
Thurs. 10:45 am

SUMMARY: How does it work? How is it made? Whose idea was it? **Here's How!** attempts to answer some of the questions that fill a child's world. Each program examines a process of invention. Starting with some historical background to the featured item or procedure (these range from hockey pucks to houses, popsicles to postal systems), the programs feature related classroom projects, show the modern manufacturing or construction process, and finally offer suggestions and follow-up activities. An ideal series to motivate whole-language activities.

ITV Links: *Let Me See*

Title: **Balls**
Program Description: A look at balls and ball games through history and a visit to a paint shop where rubber balls are painted.
Week of: 12 /11 6/4
Program No: 1

Title: **Bicycles & Pucks**
Program Description: A summary of the bicycle's history, advantages and assembly is followed by an investigation of the hockey puck and its manufacture.
Week of: 1/8 6/11
Program No: 2

Title: **Crayons & Markers**
Program Description: A historical exploration of writing and drawing and the implements we use. There is a visit to a factory where crayons and markers are made.

Week of: 1/15
Program No: 3

Title: **Balloons**
Program Description: Animated graphics and newsreel footage explore ballooning, airships and dirigibles. A balloon quiz completes the program.
Week of: 1/22
Program No: 4

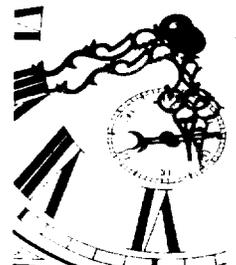
Title: **Chewing Gum**
Program Description: A comparison of several cultures' chewing habits is followed by a look at the components of chewing gum and at the manufacture of pellet and stick gum.
Week of: 1/29
Program No: 5

Title: **Elevators**
Program Description: This story of Elisha Otis's invention features footage of elevator installation, testing and operation. Children build an elevator out of Lego blocks.
Week of: 2/5
Program No: 6

Title: **Peanuts**
Program Description: Kids observe the farming of peanuts, use shells in art projects and learn about George Washington Carver's hundreds of uses for the peanut plant.
Week of: 2/12
Program No: 7

Title: **Radio & Television**
Program Description: After visits to a radio station, a television studio and a control room, children make a TV studio out of a cardboard box and put on a radio show.
Week of: 2/19
Program No: 8

Title: **Clocks & Watches**
Program Description: Viewers learn about the history of timepieces, their role in daily life and visit clock factories. Children take



SCIENCE (LANGUAGE ARTS)

Here's How! (Cont.d)

some clocks apart and design
clock faces.

Week of: 2/26
Program No: 9

Title: *Ice Cream & Popsicles*

Program Description: Kids learn about the *water ices* of the ancient Chinese. They make their own ice cream and then visit a plant which makes popsicles and ice cream.

Week of: 3/5
Program No: 10

Title: *The Postal Station*

Program Description: This program traces the development of postal services. Visits a huge postal station to show what happens to a letter after it has been dropped in a mailbox.

Week of: 3/12
Program No: 11

Title: *Light Bulbs*

Program Description: Why are electric lights so important? At the General Electric plant, kids see the modern manufacture of incandescent bulbs and fluorescent tubes.

Week of: 3/19
Program No: 12

Title: *Roads & Bridges*

Program Description: This show compares old and new techniques of road building.

Week of: 3/26
Program No: 13

Title: *Tunnels*

Program Description: A history of tunnels and their builders. This program looks at tunnels on land and under water. Viewers see the construction of Hong Kong subway tunnels.

Week of: 4/2
Program No: 14

Title: *Dolls*

Program Description: Why are dolls so popular? At a doll factory kids see plastic and vinyl dolls being made, as well as haircutting, face painting and assembly procedures.

Week of: 4/23
Program No: 15

Title: *Trucks*

Program Description: Some history of trucks and trucking and a look at different kinds of trucks. Featured footage shows the assembly of a Mack truck from the ground up.

Week of: 4/30
Program No: 16

(Call in only) 4 9

Title: *Houses*

Program Description: This program traces the development and construction of houses from early times. Children build a model neighborhood, then viewers see a modern subdivision.

Week of: 5/7
Program No: 17

Title: *Soup*

Program Description: At the Campbell's Soup factory, viewers see how vegetable soup is made, from chopping vegetables to canning.

Week of: 5/14
Program No: 18

Title: *Printing a Newspaper*

Program Description: Viewers visit a newspaper to see how the early morning edition of a big-city paper is laid out, printed and distributed.

Week of: 5/21
Program No: 19



Title: *Soup*

Program Description: This program examines early soap making and attitudes to bathing, then visits the Colgate-Palmolive factory to see the complete modern soap making procedure.

Week of: 5/28
Program No: 20

SCIENCE

A Home for Pearl

SUBJECT: Science
GRADES: K - 5
NUMBER OF SERIES: 4 Programs
MINUTES: 20 minutes (EPS, 1991)
OTHERS: Videotape and replay rights
yearly; RETAC

CHANNEL: 10
DATE AND TIME: Mon. 11:30 am
Fri. 11:30 am

SUMMARY:
A Home for Pearl teaches children about wildlife habitats and heightens their awareness of what wild animals need to survive. Programs include habitat diversity and predators.



relationship and how changes in wildlife habitat affect the predator population. Teacher guide activities simulate the predator-prey relationship and the fluctuations in limiting and stimulating factors.

Week of: 9/25
Program No: 3

Title: *The Right Home for Pearl*

Program Description: Examines how the bald eagle has become an endangered species and how wildlife is protected in wildlife refuges. The teacher guide suggests student research and problem solving for improving the environment for people and wildlife. The guide also includes a simulation of the effects of land development on plants and animals.

Week of: 10/2
Program No: 4



Title: *The Robin*

Program Description: Examines the four essential features of animal habitats: food, water, shelter and space. The teacher guide outlines a simulation for discovering the interdependencies of all animals and their habitats.

Week of: 9/11
Program No: 1

Title: *Habitat Diversity*

Program Description: Illustrates different complexities of habitats and how limiting factors affect the animal population within a habitat. Teacher guide activities include an investigation of microhabitats and ways to determine the environmental quality of an area.

Week of: 9/18
Program No: 2

Title: *Predators*

Program Description: Explains the predator and prey



SCIENCE

Inside Story with Slim Goodbody

SUBJECT: Science/Human Body
GRADES: 4 - 6
NUMBER OF SERIES: 10 Programs
MINUTES: 15 minutes (AIT, 1981, 1988)
OTHERS: Videotape and replay rights yearly; RETAC

CHANNEL: 8
DATE AND TIME: Tues. 1:15 pm
Weds. 11:30 am

SUMMARY: Slim sings and dances his way through giant working models of the human heart, lungs and digestive system to help children understand what happens inside their bodies. He describes the body as a human factory with all parts working in harmony. Children learn basic health education as Slim explains the good things they must do for the body which works so hard for them.



Title: *Lubba Dubba*
Program Description: Heart and circulation of blood.
Week of: 9/11
Program No: 1

Title: *The Breath of Life*
Program Description: Respiration.
Week of: 9/18
Program No: 2

DID YOU KNOW?

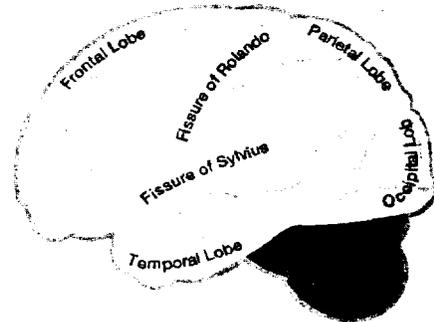
~1979 - In a report issued by the U.S. Surgeon General, cigarette smoking was labeled as the "single most important environmental factor contributing to early death."



Program Description: Digestion and chemical/physical breakdown of food.
Week of: 9/25
Program No: 3

Title: *The Team that Hustles*
Program Description: Bones and muscles; protection and motion.
Week of: 10/2
Program No: 4

Title: *The Smart Parts*
Program Description: Brain and nervous system.
Week of: 10/9
Program No: 5



Title: *The Sensational Five*
Program Description: Senses.
Week of: 10/16
Program No: 6

Title: *The Little Giants*
Program Description: Glands of the endocrine system.
Week of: 10/23
Program No: 7

Title: *The Body Symphony*
Program Description: Interaction and cooperation of all body systems.
Week of: 10/30
Program No: 8

SCIENCE

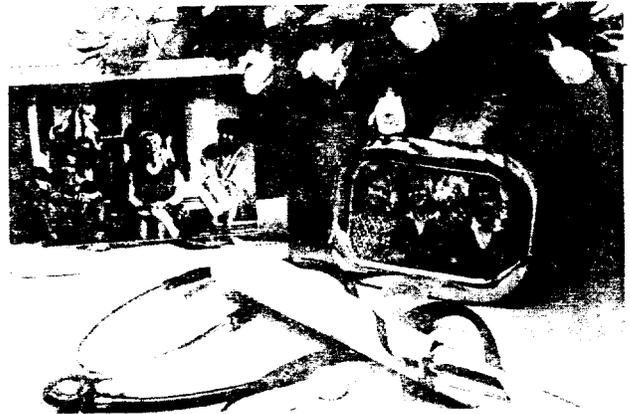
Inside Story with Slim Goodbody (Cont'd.)

Title: *Protection Against Infection*

Program Description: Immune systems, AI

Week of: 11/6

Program No: 9



Title: *Attention to Prevention*

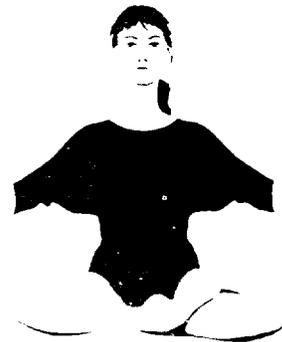
Program Description: Substance abuse (tobacco, alcohol, marijuana, cocaine and crack)

Week of: 11/13

Program No: 10

(Call-in only) 11/20

ITV Link: *AHS - 11/88*



INTERSECTIONS: For related programming check
AHS: Education in the Single Time Series

HEALTH DAYS DIARY

To reinforce the utilization of Slim Goodbody's health series *Inside Story*, Slim offers a personal health guide for children to help promote better health awareness. The 68-page booklet gives children the opportunity to keep checklists of daily activities in over 60 entertaining formats. Diaries may be purchased for \$3.00 each from:

Slim Goodbody Corporation
27 West 20th Street, Suite 1207
New York, NY 10011

SCIENCE

Let Me See

SUBJECT: Science
GRADES: 1-3
NUMBER OF SERIES: 12 Programs
MINUTES: 15 minutes (AIT, 1982)
OTHERS: Videotape and replay rights yearly; RETAC

CHANNEL: 10
DATE AND TIME: Mon. 10:30 am
Thurs. 10:45 am

SUMMARY: Helps students understand change and diversity in their environment. Through observation and discussion, the series introduces the students to scientific laws and concepts which can describe, explain and predict events.



Title: *Pendulums*
Program Description: Defines pendulums and their properties
Week of: 9/11
Program No: 1

Title: *Forces*
Program Description: Forces and the changes that occur due to imbalance
Week of: 9/18
Program No: 2

Title: *Magnets*
Program Description: Properties of magnets
Week of: 9/25
Program No: 3



INTERNET LINKS:

Internet links:

<http://www.energy.ca.gov/education/> - fun science games, links, and information about energy and its environmental impact.

<http://www.brainpop.com/science/light/rainbow/> - learn about rainbows on this fun site by watching a movie, taking a quiz, trying an experiment, and more!

Book: *Science Made Simple.* Numerous hands-on science activities encourage children to make observations, ask questions, test ideas, and share results. Topics include plants, animals, living and nonliving things, matter, magnets, electricity, the atmosphere, and the solar system. Topic bibliographies and a list of Internet resources are included. (78 pages softcover)

CD-Rom - *I Love Science!* Children will enjoy this interactive CD-ROM science lab as they learn all about typically covered science curriculum. Three different characters lead through 100 science experiments and 1,000 science problems. Consistent reinforcement and on screen assistance will keep children learning.

Kit Game: *Geo Safari Card Set:* Science Fun
These 20 large cards feature questions about dinosaurs, plants, animals, minerals, nutrition, and more. Designed to be used in conjunction with the *Geo Safari Electronic Learning Game* (sold separately)



SCIENCE

Let Me See (Cont'd.)

Title: *Sun*

Program Description: Characteristics and effects of the sun.

Week of: 10/2

Program No: 4

Title: *Air and Wind*

Program Description: Properties of air.

Week of: 10/9

Program No: 5

Title: *Water and Rain*

Program Description: Evaporation, condensation and the water cycle.

Week of: 10/16

Program No: 6



Title: *Soil*

Program Description: Change of rocks to soil.

Week of: 10/23

Program No: 7

Title: *Ants and Worms*

Value of ants and worms to the soil.

Week of: 10/30



Program No. 8

Title: *Plants*

Program Description: Growth cycle.

Week of: 11/6

Program No: 9

Title: *Insects*

Program Description: Physical characteristics.

Week of: 11/13

Program No: 10

(Call in only) 11 20

Title: *Birds*

Program Description: Physical characteristics.

Week of: 11/27

Program No: 11



Title: *The Pond*

Program Description: Ecosystem.

Week of: 12/4

Program No: 12



SCIENCE

Newton's Apple 1 and 2

SUBJECT: Science
GRADES: 7+
NUMBER OF SERIES: 26 Programs
MINUTES: 30 minutes (KTCA)
OTHERS: Videotape and replay rights
in perpetuity: RETAC (State buy)

CHANNEL: 8
DATE AND TIME: Tues. 11:00 am
Fri. 10:45 am

SUMMARY: Fast paced and lively answers to viewers' questions about science, math, technology and the world in general. Demonstrations and experiments are staged by Ira Flatow and guest experts.



Newton's Apple 1

Title: *Body Fat, Fiber Optics, Fainting, Dolphins*
Week(s) of: 9/11
Program No: 101

Title: *Curve Balls, Voice Printing, Goosebumps, Hawks*
Week(s) of: 9/18
Program No: 102

Title: *Astronaut Training, Why Our Extremities Fall Asleep, Clouded Leopards*
Week(s) of: 9/25

Program No: 103

Title: *Hypnosis, Why Is Sky Blue, Hit on the Head, Colds*
Week(s) of: 10/2
Program No: 104

Title: *Fear of Falling, Stress and the Heart, Why Do Our Ears Pop*
Week(s) of: 10/9
Program No: 105

Title: *Video Games, Holography, Funny Bone, Onions and Tears*
Week(s) of: 10/16
Program No: 106

Title: *Color Blindness, the Taste Buds, Black Holes*
Week(s) of: 10/23
Program No: 107

Title: *Digital Sound (music), Boiling Eggs, Teeth Chattering, Camels*
Week(s) of: 10/30
Program No: 108

Title: *Ultrasound, Space Suits, Cracking Knuckles, Porcupines*
Week(s) of: 11/6
Program No: 109

Title: *Robots, Interplanetary Communication, Ice-Cream Headaches, Parrots*
Week(s) of: 11/13
Program No: 110

(Call in only) 11/20

Title: *Blood Types, Wheels, Prosthetics, Armadillo*
Week(s) of: 11/27
Program No: 111

Title: *Radar, Talking Machines, Why Skin Wrinkles With Age, Snakes*
Week(s) of: 12/4

SCIENCE

Newton's Apple 1 and 2 (Cont'd.)

Program No: 112

Title: *What Is Lightning?
Karate, Physics, Why Your Nose Runs When
You Cry, Possums*
Week(s) of: 12 /11
Program No: 113

Newton's Apple 2

Title: *Mummies, Bicycles, Helium Chat, Owl*
Week(s) of: 1/29
Program No: 201

Title: *Balloons, Hearing, Side Stitch, Beluga
Whales*
Week(s) of: 2/5
Program No: 202

Title: *Fire, Artificial Heart, Penguins*
Week(s) of: 2/12
Program No: 203

Title: *Lie Detector, Golf Balls, Hiccups, Cold
Remedies*
Week(s) of: 2/19
Program No: 204

Title: *Imploding, Snoring, Stomach Growls,
Walruses*
Week(s) of: 2/26
Program No: 205

Title: *Computer Graphics, Smell, Tarantulas,
Inventions*
Week(s) of: 3/5
Program No: 206

Title: *Pain, Optical Illusions, Wineglass Songs,
Iguana*
Week(s) of: 3/12

Program No: 207

Title: *Electricity, Vision, Tennis Elbow,
Bubbles*
Week(s) of: 3/19
Program No: 208

Title: *Thermography, Voice, Yawning,
Pronghorn*
Week(s) of: 3/26
Program No: 209

Title: *Car Crash, Allergies, Blushing,
Reindeer*
Week(s) of: 4/2
Program No: 210

Title: *Sports Clinics, Radioactivity, Acne,
Baby Tigers*
Week(s) of: 4/23
Program No: 211

Title: *Space Shuttle*
Week(s) of: 4/30
Program No: 212

(Call in only) 4 9

Title: *Balance, Cooking, Why Scientists
Disagree, Eagles*
Week(s) of: 5/7
Program No: 213

QUOTE:

*Science is organized knowledge
Wisdom is organized life
-- Emmanuel Kant*



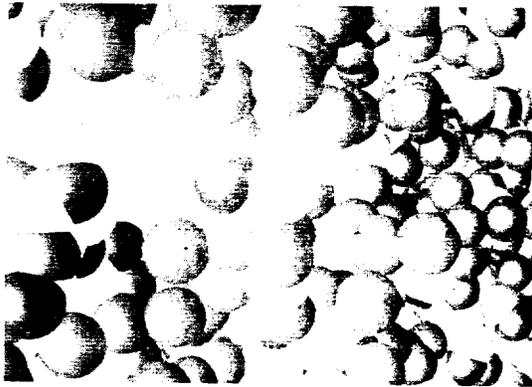
SCIENCE

Newton's Apple 3

SUBJECT: Science
GRADES: 7+
NUMBER OF SERIES: 13 Programs
MINUTES: 30 minutes (KTCA)
OTHERS: Videotape and replay rights
in perpetuity: RETAC (State buy)

CHANNEL: 8
DATE AND TIME: Tues. 11:30 am
Thurs. 1:30 pm

SUMMARY: Fast paced and lively answers to viewers' questions about science, math, technology and the world in general. Demonstrations and experiments are staged by Ira Flatow and guest experts.



Title: *What Dead Ernie Looks Like, Rainbows,
Popcorn, Hippo*
Week(s) of: 12/11
Program No: 301

Title: *Dinosaurs, Bullet Proof Vests, Heartburn,
Whales*
Week(s) of: 1/8
Program No: 302

Title: *Space Shuttle, Rube Goldberg, Crazy*

Inventions

Week(s) of: 1/15
Program No: 303

Title: *Chimp Talk, the Bends, Sweating, Cold
Remedies*

Week(s) of: 1/22
Program No: 304

Title: *Boomerangs, Cooking, Bears*

Week(s) of: 1/29
Program No: 305

Title: *Comets, Perpetual Motion, Warts, Sharks*

Week(s) of: 2/5
Program No: 306

Title: *FBI, Stomachs, Llamas*

Week(s) of: 2/12
Program No: 307

Title: *Cancer, Tennis Rackets, Sneezing, Badgers*

Week(s) of: 2/19
Program No: 308

Title: *Punting a Football, Color, Jet Lag, Sea Lions*

Week(s) of: 2/26
Program No: 309

Title: *Muscles and Bones, Einstein, Falling Stars,
Raptors*

Week(s) of: 3/5
Program No: 310

Title: *Earthquakes, Lungs, Bats*

Week(s) of: 3/12
Program No: 311

Title: *Headaches, Egg Balancing on Equinox,
Peppers, Lions*

Week(s) of: 3/19
Program No: 312

Title: *Shower Resonance, Calories, Tan/Bleach,
Patagonian Cavy*

Week(s) of: 3/26
Program No: 313

SCIENCE (SPANISH/ESL)

Oceanos Vivos

SUBJECT: Science/Spanish/ESL
GRADES: 4 - 12
NUMBER OF SERIES: 20 Programs
MINUTES: 5 minutes (EMC, 1991)
OTHERS: Videotape and replay rights
yearly; RETAC (State buy)

CHANNEL: 12
DATE AND TIME: Mon. 1:00 pm
Fri. 10:00 am

SUMMARY: *Oceanos Vivos* illustrates themes in science using marine animals filmed around the world. The series also provides a content-rich resource for language instruction. Because the series is simply written and provides contextual clues, it is a good vehicle for Spanish instruction, immersion and ESL programs.

Title: *Introduction*

Program Description: The sea is alive with a wide variety of fish, crustaceans and echinoderms.

Week(s) of: 9/11

Program No: 1



Title: *Predation*

Program Description: Ocean predators include not only the sharks and barracuda, but any animal that feeds on another.

Week(s) of: 9/18 2/26

Program No: 2

Title: *Cnidaria*

Program Description: Corals, jellyfish and anemones are members of Cnidaria.

Week(s) of: 9/25 3/5

Program No: 3

Title: *Living Rock*

Coral looks like a rock and feels hard when it is touched but it is composed of thousands of tiny animals.

Week(s) of: 10/2 3/12

Program No: 4

Title: *The Coral Jungle*

Program Description: The coral reef, like a tropical rainforest, is home to a great variety of organisms.

Week(s) of: 10/9 3/19

Program No: 5

Title: *Life Together*

Program Description: Symbiosis is a relationship between two organisms.

Week(s) of: 10/16 3/26

Program No: 6

Title: *The Clownfish and the Anemone*

Program Description: Bright orange clownfish live in an unusual symbiotic relationship with sea anemones.

Week(s) of: 10/23 4/2

Program No: 7

Title: *Protection by Deception*

Program Description: Many slow-moving reef fish have adapted to their environment by developing special deceptive devices.

Week(s) of: 10/30 4/23

Program No: 8

Title: *Camouflage*

SCIENCE (SPANISH/ESL)

Oceanos Vivos (Cont'd.)

Program Description: Camouflage enables many animals to simply disappear.

Week(s) of: 11/6 4/30

Program No: 9

(Call in only 4 9)

Title: *Armed and Dangerous*

Program Description: Many animals have developed special adaptations to arm themselves.

Week(s) of: 11/13 5/7

Program No: 10

(Call in only 11 20)

Title: *Porifera*

Program Description: Sponges seem to be like plants but they are the simplest form of multicellular animals.

Week(s) of: 11/27 5/14

Program No: 11



Title: *Crustacea*

Program Description: The more than 25,000 varieties of Crustacea have a variety of sizes, shapes and colors.

Week(s) of: 12/4 5/21

Program No: 12

Title: *Echinoderms*

Program Description: Echinoderms get their names

from the spiny skin which covers their bodies.

Week(s) of: 12/11 5/28

Program No: 13

Title: *What Is a Fish?*

Program Description: There are two distinct types of fish: bony and cartilaginous.

Week(s) of: 1/8

Program No: 14 6/4

Title: *Fish Senses*

Program Description: Fish can smell, hear, taste and touch in ways similar to humans.

Week(s) of: 1/15 6/11

Program No: 15

Title: *Sharks and Rays*

Program Description: These primitive fish are closely related and evolved about 500 million years ago.

Week(s) of: 1/22

Program No: 16

Title: *Respiration*

Program Description: Marine animals, like people, need a continuous supply of oxygen to live.

Week(s) of: 1/29

Program No: 17

Title: *Undersea Eyes*

Program Description: Many animals in the sea have very large eyes and see very well, but others can only sense shades of light and dark.

Week(s) of: 2/5

Program No: 18

Title: *The Deep Blue Sea*

Program Description: Why does the sea look blue?

Week(s) of: 2/12

Program No: 19

Title: *Reproduction*

Program Description: Animals in the sea have evolved a variety of mechanisms in order to reproduce.

Week(s) of: 2/19

Program No: 20

SCIENCE

Oceans Alive

SUBJECT: Science
GRADES: 4 - 12
NUMBER OF SERIES: 40 Programs
MINUTES: 5 minutes (EMC, 1991)
OTHERS: Videotape and replay rights
yearly: RETAC (State buy)

CHANNEL: 12
DATE AND TIME: Mon. 9:30 am
Weds. 11:15 pm

SUMMARY: *Oceans Alive* illustrates themes in science using marine animals filmed around the world. The series also provides a content-rich resource for language instruction.



Title: *Introduction*
Program Description: The sea is alive with a wide variety of fish, crustaceans and echinoderms.
Week(s) of: 9-11
Program No: 1

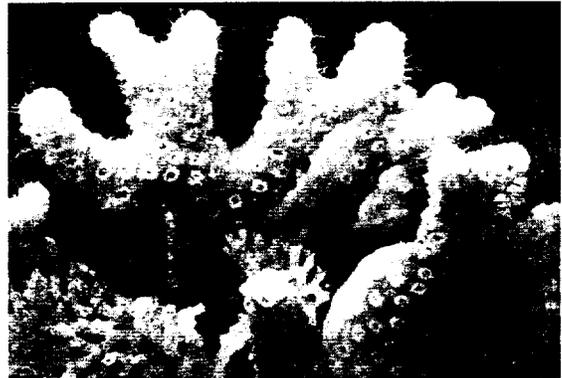
Title: *Predation*
Program Description: Ocean predators include not only the sharks and barracuda, but any animal that feeds on another.
Week(s) of: 9-11
Program No: 2

Title: *Cnidaria*
Program Description: Corals, jellyfish and anemones

are members of Cnidaria.
Week(s) of: 9-18
Program No: 3

Title: *Living Rock*
Program Description: Coral looks like a rock and feels hard when it is touched but it is composed of thousands of tiny animals.
Week(s) of: 9-18
Program No: 4

Title: *The Coral Jungle*
Program Description: The coral reef, like a tropical rainforest, is home to a great variety of organisms.
Week(s) of: 9-25
Program No: 5



Title: *Life Together*
Program Description: Symbiosis is a relationship between two organisms.
Week(s) of: 9-25
Program No: 6

Title: *The Clownfish and the Anemone*
Bright orange clownfish live in an unusual symbiotic relationship with sea anemones.
Week(s) of: 10-2
Program No: 7

Title: *Protection by Deception*
Program Description: Many slow-moving reef fish have adapted to their environment by developing special deceptive devices.

SCIENCE

Oceans Alive (Cont'd.)

Week(s) of: 10/2
Program No: 8

Title: *Camouflage*

Program Description: Camouflage enables many animals to simply disappear.

Week(s) of: 10/9
Program No: 9

Title: *Armed and Dangerous*

Program Description: Many animals have developed special adaptations to arm themselves.

Week(s) of: 10/9
Program No: 10

Title: *Porifera*

Program Description: Sponges seem to be like plants but they are the simplest form of multicellular animals.

Week(s) of: 10/16
Program No: 11

Title: *Crustacea*

Program Description: The more than 25,000 varieties of Crustacea have a variety of sizes, shapes and colors.

Week(s) of: 10/16
Program No: 12

Title: *Echinoderms*

Program Description: Echinoderms get their names from the spiny skin which covers their bodies.

Week(s) of: 10/23
Program No: 13

Title: *What Is a Fish?*

Program Description: There are two distinct types of fish: bony and cartilaginous.

Week(s) of: 10/23
Program No: 14

Title: *Fish Senses*

Program Description: Fish can smell, hear, taste and touch in ways similar to humans.

Week(s) of: 10/30
Program No: 15

Title: *Sharks and Rays*

Program Description: These primitive fish are closely

related and evolved about 500 million years ago.

Week(s) of: 10/30
Program No: 16

Title: *Respiration*

Program Description: Marine animals, like people, need a continuous supply of oxygen to live.

Week(s) of: 11/6
Program No: 17

Title: *Undersea Eyes*

Program Description: Many animals in the sea have very large eyes and see very well, but others can only sense shades of light and dark.

Week(s) of: 11/6
Program No: 18

Title: *The Deep Blue Sea*

Program Description: Why does the sea look blue?

Week(s) of: 11/13
Program No: 19

Title: *Reproduction*

Program Description: Animals in the sea have evolved a variety of mechanisms in order to reproduce.

Week(s) of: 11/13
Program No: 20

Title: *Introduction*

Program Description: When we see the earth from space, our world is blue. Seventy percent of its surface is covered by water. Earth's water, found in oceans, lakes, rivers and clouds, is vital to the survival of all living things.

Week(s) of: 11/27
Program No: 21

Title: *Marine Mammals*

Program Description: Their ancestors once walked on land but these animals live in the sea. Marine mammals are our cousins in the sea.

Week(s) of: 11/27
Program No: 22

Title: *The Dolphin*

Program Description: The mammal of the sea which

SCIENCE

Oceans Alive (Cont'd.)

is closest to you.

Week(s) of: 12/4

Program No: 23

Title: *Sea Birds*

Program Description: What makes a sea bird different from the birds that might live in your back yard?

Week(s) of: 12/4

Program No: 24

Title: *The Salt Marsh*

Program Description: It's a place that's not quite land and not quite water. Large numbers of living things are found here, but only a few different species are equipped to survive here.

Week(s) of: 12/11

Program No: 25

Title: *The Food Web*

Program Description: Some of the largest animals in the ocean feed on some of the smallest. In the oceans, living things form a pyramid of life from the very small to the very large.

Week(s) of: 12/11

Program No: 26

Title: *Plankton*

Program Description: Most people have homes, but in the ocean there are lots of animals that don't have homes. Plankton drift along wherever the ocean takes them, forming a sort of living soup.

Week(s) of: 1/8

Program No: 27

Title: *Mollusks*

Program Description: Some can fly through the water like a jet plane. Some creep across the reef so slowly it's hard to see them move. Others live their lives permanently cemented in place.

Week(s) of: 1/8

Program No: 28

Title: *Sand Country*

Many living things are found on a coral reef. Sand looks

barren and desolate; we don't see anything alive.

But if we take a closer look, we'll see that there is a lot happening in sand country.

Week(s) of: 1/15

Program No: 29

Title: *Homes*

Program Description: Some sea creatures build their own, some are born with one, and others borrow someone else's home. Like us, many sea creatures need homes.

Week(s) of: 1/22

Program No: 30

Title: *Islands Under the Sea*

Program Description: Much of the sea floor is a vast and seemingly empty wilderness of sand. Yet here and there we find an oasis. The skeletons of large ships, lost by accident or in war, become islands for marine life of all kinds.

Week(s) of: 1/22

Program No: 31

Title: *Slugs*

Program Description: Some are smaller than a penny. Others are as large as your hand. Some are bright and colorful. Others are camouflaged. They're all related to an animal that lives right in your back yard--slugs!

Week(s) of: 1/29

Program No: 32

Title: *Tunicates*

Program Description: They may look like a bunch of grapes, or a banana, or just a hole in the rock. But they are complex animals who survive without moving an inch. They let the sea bring them everything they need.

Week(s) of: 1/29

Program No: 33

Title: *Amazing Rays*

Program Description: They have a bad reputation. They can be as small as your hand or grow to

SCIENCE

Oceans Alive (Cont'd.)

3,000 pounds--and they do it with no bones in their bodies!

Week(s) of: 2/5

Program No: 34

Title: *The Cleaning Station*

Program Description: When fish are in one place, are they resting? Are they grouped for protection? No, they are simply waiting in line for their turn with a tiny janitor of the reef.

Week(s) of: 2/5

Program No: 35

Title: *The Deep*

Program Description: We often think of the ocean floor as a beautiful, sunlit coral reef, alive with fish and other marine creatures. But reefs are found only in warm and shallow waters. The average depth of the oceans is over 12,000 feet. See what life is like at the bottom of the ocean.

Week(s) of: 2/12

Program No: 36

Title: *Colors and Patterns*

Program Description: The color or design of an animal helps avoid danger, find food, or even find a mate. But some marine animals have shapes and colors that seem so strange, it's hard to imagine they have a purpose.

Week(s) of: 2/12

Program No: 37

Title: *Ties*

Program Description: Why is the beach sometimes wide and at other times narrow? Tides are extremely important for people who live, work and play along coastal areas.

Week(s) of: 2/19

Program No: 38

Title: *Water, Water, Everywhere*

Program Description: When we view the earth from

space, it's easy to see that our home is covered with water. Yet why is water so important, and why is it so easily damaged, if there is so much of it?

Week(s) of: 2/26

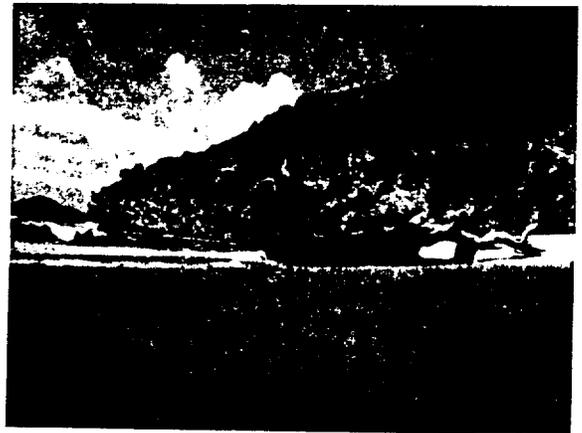
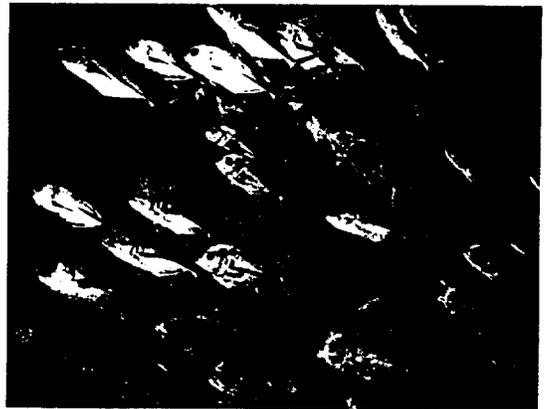
Program No: 39

Title: *People and the Sea*

Program Description: We enjoy the ocean. It's fun to dive or swim or just spend time at the beach. But we depend on the sea for other very important things. What is the relationship of people and the sea?

Week(s) of: 2/26

Program No: 40



SCIENCE (ENVIRONMENT)

Outside Story with Slim Goodbody

SUBJECT: Science: Environment
GRADES: 3 - 8
NUMBER OF SERIES: 6 Programs
MINUTES: 15 minutes (AIT)
OTHERS: Videotape and replay rights
1994; RETAC (State buy)

CHANNEL: 8
DATE AND TIME: Mon. 9:00 am
Weds. 1:00 pm

SUMMARY: Slim Goodbody has helped students learn about what goes on inside their bodies. Now he's turning their attention outward to the environment. Slim shows children why it's important to take care of the world. The programs not only explore the environment, but also offer students a variety of steps which they can take to make a difference.

(Take a Look airs 9/11 to 2/26)

Title: *Our Living Planet*

Program Description: The program focuses on the Earth and how living things and the environment work together. Slim takes viewers on a brief guided tour of the Earth looking at the lithosphere, the hydrosphere, the atmosphere and the biosphere.
Week(s) of: 2/26 4/23 6/4
Program No: 1

Title: *The Air We Share*

Program Description: This program focuses on the atmosphere. Different layers of the atmosphere and their composition is examined in a discussion of what plants and animals need to survive. The importance of the ozone layer and global warming is examined.
Week(s) of: 3/5 4/30 6/11
Program No: 2

(Call in only 4/9)

Title: *Our Watery World*

Program Description: Focusing on the interdependence of all living things, this program stresses how important water is. In a discussion of the amount of water needed for our world, the water cycle is explained along with suggestions for conserving.
Week(s) of: 3/12 5/7
Program No: 3

Title: *Treasure House Earth*

Program Description: This program focuses on the lithosphere and all of the treasures beneath our feet - minerals, metals and the soil. A discussion of these limited resources leads to an examination of alternative forms of energy.
Week(s) of: 3/19 5/14
Program No: 4

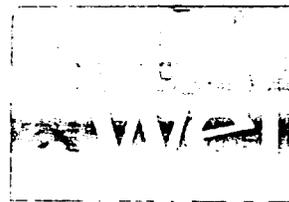
Title: *The Family Life*

Program Description: The interdependence of the species is the focus of this program. The food chain and how plants and animals help each other is explained. The plight of the rain forests is also highlighted.
Week(s) of: 3/26 5/21
Program No: 5

Title: *It All Adds Up*

Program Description: This program focuses on the waste produced by humans, how we dispose of it and how it affects the environment. Ideas for reducing, reusing and recycling are discussed.
Week(s) of: 4/2 5/28
Program No: 6

INTERSECTIONS: For related programming check *No Time to Waste* in the **Single Time Series**.



SCIENCE/CAREERS

Real Science

SUBJECT: Science/Careers
GRADES: 5-10
NUMBER OF SERIES: 6 Programs
MINUTES: 20 minutes
OTHERS: Videotape and replay rights yearly; RETAC

CHANNEL: 10
DATE AND TIME: Tues. 10:45 am
Fri. 2:00 pm

SUMMARY: *Real Science* introduces students to exciting careers in science and challenges students' perceptions of science and scientists. This series encourages students to pursue activities and courses that could lead to a career in science or a related field. Students meet real scientists, "spend a day" with them, and watch student hosts participate in hands-on experiments. "Action Tips" follow each segment and give students activities they can do immediately to explore a career that interests them.

Title: *Animal Lovers*

Program Description: Career Focus: Veterinary Science/Marine Biology. The host spends the day with the Chief Veterinarian at Marine World Africa USA, examining killer whales, dolphins, elephants, an orangutan and a baby opossum. The student helps the doctor in treating a sick wallaby. A marine biologist at the University of California Santa Cruz who studies elephant seals is joined by a student host to help tag elephant seals and collect blood samples from them at the Ano Nuevo State Reserve. They also conduct an electrophoresis experiment with the blood samples in a lab setting.

Week(s) of: 4/30
Program No: 1

(Call in only) 4/9

Title: *Mysteries of the Past*

Program Description: Career Focus: Astronomy/Archaeology. An astronomer at University of California Santa Cruz who does research on distant galaxies is joined by the host, working all night with him, using a 120 inch telescope at the Lick Observatory on Mount Hamilton. An archaeologist with Crow Canyon Research Center in Colorado works with a student host in excavating an Anasazi kiva at a new research site. They work in her archaeology lab to identify pottery shards and other Indian artifacts from the dig.

Week(s) of: 5/7
Program No: 2

Title: *Jurassic Jobs*

Program Description: Career Focus: Paleontology/Computer Science. A staff paleontologist at Dinosaur National Monument goes hiking with the host in the Utah mountains. They discover dinosaur footprints and travel back to the lab to examine dinosaur fossils. A computer engineer explores her research on video conferencing and computer graphics. The company's workstations, which were used to create graphics for many films, are also demonstrated.

Week(s) of: 5/14
Program No: 3

Title: *Black Holes*

Program Description: Career Focus: Wildlife Biology/Space Science. A wildlife psychologist at the University of California, Berkeley, gives a tour of the university's research facilities where she is attempting to breed endangered kangaroo rats in captivity. She also shares a study she is conducting on the behavior of spotted hyenas. A physicist at NASA Ames Research Center is studying the planet Mars and investigating rocks from Antarctica which are similar to rocks found on Mars. The student host learns how to operate the Mars Rover through "telepresence."

Week(s) of: 5/21

SCIENCE (CAREERS)

Real Science (Cont'd.)

Program No: 4

Title: *Cutting Edge*

Program Description: Career Focus: Medical Science/Physics. The Chief of Surgery at Valley Medical Center in San Jose, California is joined by a teen host who scrubs up for surgery and observes the doctor during a gallbladder operation. They also go on "rounds" together to check on patients. A physicist working on the NOVA laser program at Lawrence Livermore National Laboratories explains how fusion can create energy and how it may prove to be a new source of renewable energy in the future.

Week(s) of: 5/28

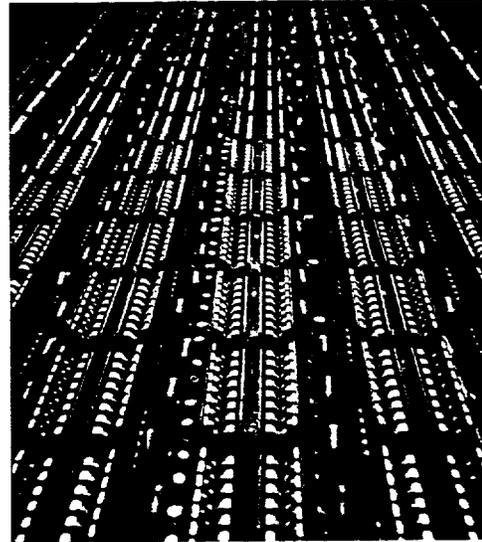
Program No: 5

Title: *In Your Genes*

Program Description: Career Focus: Molecular Biology/Forensic Science. A biochemist in charge of education programs at Lawrence Livermore National Laboratories in California takes the teen host on a tour of Livermore's Human Genome Project laboratory and explains a joint project being conducted with NASA's scientific Balloon Facility. How DNA is cloned and how genetic research may lead to cures for cancer and AIDS are explained by a molecular biologist who works at a biotechnology firm called Genentech. Shows how important working together in a community can be.

Week(s) of: 6/4

Program No: 6



SCIENCE

Real Science IV

SUBJECT: Science
GRADES: 6-11
NUMBER OF SERIES: 13 Programs
MINUTES: 26-28 minutes
OTHERS: Videotape and replay rights yearly; RETAC

CHANNEL: 12
DATE AND TIME: Tues. 10:00 am
Fri. 1:30 pm

SUMMARY: *Real Science IV* Hunt for dinosaur footprints, search for distant galaxies, view the future through virtual reality and collect blood samples from elephant seals. These are just a few of the experiences teens will have when they tune in to *Real Science!*

Title: *Ice Age*

Program Description: Secrets of the Pleistocene Ice Age are revealed in the first episode of the fourth season of *Real Science!* Teen reporters visit the George C. Page Museum of La Brea Discoveries, where modern paleontologists are digging up the fossilized remains of long extinct animals. Next, it's a trip to the Smithsonian Institution, where a paleobiologist is uncovering surprising new information about the dinosaurs.

Week(s) of: 10/23 2/19
Program No: 1

Title: *Wet and Dry*

Program Description: Cool off in the snow-covered mountains of the Sierra Nevada as scientists measure the water content in the winter snow pack, providing the water supply for millions of people in California. Then, warm up with a journey to the hot Sonoran Desert in Arizona to a sacred site of the Tohono O'Odham Nation, where archaeologists study rock petroglyphs.

Week(s) of: 10/30 2/26
Program No: 2

Title: *Talk to the Animals*

Program Description: Amazing discoveries in veterinary science help animals live longer and healthier lives. Visit the world-famous Animal Medical Center and glimpse pioneering treatment in pet health care. Then, it's off to Sea World, where revolutionary techniques help save the life of a baby gray whale.

Week(s) of: 11/6 3/5
Program No: 3

Title: *Food and Farm*

Program Description: Learn what it takes to grow commonly-eaten food and check out how technology may make farming much less labor intensive. Next, it's off to the U.S. Army Soldier Systems Command to find out how "Meals Ready to Eat" (MRE) are made.

Week(s) of: 11/13 3/12
Program No: 4

(Call in only) 11/20

Title: *Birds of a Feather*

Program Description: A dangerous oil spill in the San Francisco Bay harmed hundreds of birds. It's up to the International Bird Rescue Center to help capture, rehabilitate, and release the waterfowl exposed to the oil. Ducks take center stage next, at the Sacramento Delta wetlands, where the wood duck population provides a critical indicator species to monitor ecology.

Week(s) of: 11/27 3/19
Program No: 5

Title: *Electronic Ears*

Program Description: In this episode, acoustic and digital sound technology in music and movies makes engineering real. Teen reporters tour Lucent Technologies to view the latest in acoustical technology. Plus learn how digital audio plays a key role in today's hottest tunes at Berklee College of Music, and experience digital sound behind movie

SCIENCE

Real Science IV (Cont'd.)

blockbusters at Dolby Labs.
Week(s) of: 12/4 3/26
Program No: 6

Title: *Prehistoric Plants*
Program Description: Non-native plant species are taking over the habitats of indigenous plants, and the process is endangering some of California's plants. Then delve into the New Mexico dry, rocky badlands, where lush ferns and plants grew millions of years ago.
Week(s) of: 12/11 4/2
Program No: 7

Title: *Tech Detectives*
Program Description: Search for elusive clues in this study of forensic science. Uncover answers at the Alcohol Tobacco and Firearms headquarters. Then, it's a trip to Lake Mead where sonar finds and tracks the breeding population of an endangered species of fish.
Week(s) of: 1/8 4/23
Program No: 8

Title: *Bones*
Program Description: Bones and skeletons reveal important information about life and death. A forensic anthropologist who studies human remains shows how she assists the field of medical science, as well as the police department. Then visit a marine biologist who studies whale and dolphin skeletons.
Week(s) of: 1/15 4/30
Program No: 9

(Call in only) 4/9

Title: *Marine Adventures*
Program Description: Meet sharks, dolphins, and sea lions living in dramatically different environments. First, it's a wild and rocky boat trip out to the Farrallon Islands to observe the sea lion population and witness the power of the Great White Shark, one of nature's most voracious predators. Then it's off to the luxurious Mirage Resort of the Las Vegas Strip, where one of the most popular attractions is the dolphin habitat.

Week(s) of: 1/22 5/7
Program No: 10

Title: *Solar Exploration*
Program Description: Planning a trip to Mars? How about a detour to the moon along the way? Explore the solar system with a stop in the satellite clean room at Lockheed Martin, where you can check out the Lunar Prospector. Next, a tour of the dry bed of the Salt River provides insight into the terrain the Mars Pathfinder might encounter on the red planet.
Week(s) of: 1/29 5/14
Program No: 11

Title: *Nature's Predators*
Predation is one of the most important processes in nature and disruption will cause serious problems in the food chain. Take a look beneath the waters of Chesapeake Bay to see the complex relationship between the predators (fish and prey (shrimp)). Then it's a long, hot, and dusty hike into the hills near Tucson to study venomous spiders.
Week(s) of: 2/5 5/21
Program No: 12

Title: *Flight Deck*
Program Description: Find out what it takes to be an FA-18 Hornet pilot in the U.S. Navy, and take a ride in the full motion flight simulator. Then blast off to Aerojet to discover how rocket engines are built for the space shuttle and other launch vehicles.
Week(s) of: 2/12 5/28
Program No: 13



SCIENCE

Science Is Elementary

SUBJECT: Science
GRADES: K-3
NUMBER OF SERIES: 10 Programs
MINUTES: 15 minutes, closed captioned (AIT,1994)
OTHERS: Videotape and replay rights yearly; RETAC

CHANNEL: 10
DATE AND TIME: Weds. 11:15 am
Fri. 9:00 am

SUMMARY: *Science Is Elementary* appeals to the curiosities of young children by investigating phenomena of biology, physics and the earth as no textbook can. Each program begins with an exploration section illustrating the topic with a variety of examples. The concept development asks students to observe, classify and compare situations as they begin to study the scientific principles. An application segment systematically demonstrates the concept with a variety of real world situations. Each program concludes by illustrating a connection between the scientific theme and disciplines or cultures, and challenging students to solve a *You Try It* problem.

Title: *Let's Explore Plants*
Program Description: Explores what a plant is, how it grows and changes and its relationships with the environment.
Week(s) of: 3/5 5/28
Program No: 1

Title: *Let's Explore Animals*
Program Description: Examines what animals are, how they grow and change, their relationships with the environment and their importance to us.
Week(s) of: 3/12 6/4
Program No: 2

Title: *Let's Explore Water*
Program Description: Considers the properties of water, why things float and sink and water sources and uses.
Week(s) of: 3/19 6/11
Program No: 3

Title: *Let's Explore Light and Shadow*
Program Description: Examines how light creates and alters shadows; considers our feelings about shadows.
Week(s) of: 3/26
Program No: 4

Title: *Let's Explore Sound*
Program Description: Looks at what sound is, types of sounds, sound sources and how sound travels.
Week(s) of: 4/2
Program No: 5

Title: *Let's Explore Tools and Work*
Program Description: Defines work and considers how tools and simple machines make our work easier.
Week(s) of: 4/23
Program No: 6

Title: *Let's Explore Magnets*
Program Description: Examines basic properties of magnets and how they work.
Week(s) of: 4/30
Program No: 7

(Call in only) 4/9

Title: *Let's Explore Air*
Program Description: Looks at the atmosphere, its properties and its usefulness to us.
Week(s) of: 5/7
Program No: 8

Title: *Let's Explore Weather and the Seasons*
Program Description: Considers different kinds of weather, how weather changes through the seasons and how we can measure the wind and the rain.
Week(s) of: 5/14
Program No: 9

Title: *Let's Explore Soil and Rocks*
Program Description: Examines different kinds of rocks, how soil is formed and our uses of these resources.
Week(s) of: 5/21
Program No: 10

SCIENCE

Take a Look

SUBJECT: Science
GRADES: 2-5
NUMBER OF SERIES: 20 Programs
MINUTES: 10 minutes (TVO, 1986)
OTHERS: Videotape and replay rights yearly; RETAC

CHANNEL: 8
DATE AND TIME: Mon. 9:00 am
Weds. 1:00 pm

SUMMARY: Explores the role science plays in our lives. Encompassing the physical and life sciences and geology, each program examines a different aspect of our physical universe. A variety of experiments are presented, which teachers can perform with students in the classroom. The series is designed to stimulate children's curiosity and inventiveness and extend beyond basic science into areas of art.

Title: *Plants*

Program Description:

Shows the four parts of a plant and their functions.

Week(s) of: 9/11

Program No: 1

Title: *Flowers and Seeds*

Program Description:

Looks at a flower's role in creating new plants.

Week(s) of: 9/18

Program No: 2

Title: *Growing Things*

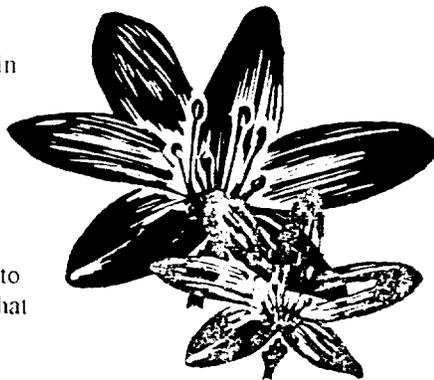
Program Description:

Shows how seeds travel to new places, and plants that grow without seeds.

Week(s) of: 9/25

Program No: 3

Title: *Insects*



Program Description:

Visits a bee-keeping farm to see how honey is made.

Week(s) of: 10/2

Program No: 4

Title: *Eggs*

Program Description:

Takes a close look inside eggs to identify the parts and their functions.

Week(s) of: 10/9

Program No: 5

Title: *Birds*

Program Description:

Examines the special shapes of birds' beaks and how they suit birds' diets.

Week(s) of: 10/16

Program No: 6

Title: *Flight*

Program Description:

Tells about birds' bones, feathers and wings and how they are designed for flight.

Week(s) of: 10/23

Program No: 7

Title: *Seasons*

Program Description:

Visits a marsh on a summer morning and on a winter day to show the changes that the seasons bring.

Week(s) of: 10/30

Program No: 8

Title: *Playground Science*

Program Description:

Mixes fun and science while discussing gravity and balance points at the playground.

Week(s) of: 11/6

Program No: 9

SCIENCE

Take a Look (Cont'd.)

Title: *Boats*

Program Description:

Uses simple backyard experiments to show why some objects float and some sink.

Week(s) of: 11/13

Program No: 10

(Call in only) 11/20

Title: *Mixtures*

Program Description:

Shows the difference between two types of mixtures, suspension and solution, and ways to experiment with them at home.

Week(s) of: 11/27

Program No: 11

Title: *Sun and Other Stars*

Program Description:

Talks about the sun and its relationship to other stars, and the sun's effect on the earth.

Week(s) of: 12/4

Program No: 12

Title: *The Moon*

Program Description:

Studies the four phases of the moon and shows a calendar to chart the moon's progress.

Week(s) of: 12/11

Program No: 13

Title: *Rocks*

Program Description: Identifies

sedimentary, metamorphic and igneous rock and their origins.

Week(s) of: 1/8

Program No: 14

Title: *Crystals*

Program Description:

Takes a close look at the shapes of some common crystals and shows how to make sugar crystals.

Week(s) of: 1/15

Program No: 15

Title: *Fossils*

Program Description:

Studies fossils and how they are made, and uses fossils to provide clues to Earth's history.

Week(s) of: 1/22

Program No: 16

Title: *Wind*

Program Description:

Examines how the wind creates weather and explains how storms can start.

Week(s) of: 1/29

Program No: 17

Title: *Rain*

Program Description:

Explains why the water cycle is important for all living things.

Week(s) of: 2/5

Program No: 18

Title: *Waste*

Program Description:

Examines how things decay and emphasizes the value of recycling.

Week(s) of: 2/12

Program No: 19

Title: *Energy*

Program Description:

Shows the basic principles of energy, the different forms it can take and how energy is found everywhere.

Week(s) of: 2/19

Program No: 20



SCIENCE

Up Close and Natural

SUBJECT: Science
GRADES: 1-6
NUMBER OF SERIES: 15 Programs
MINUTES: 15 minutes (AIT, 1986)
OTHERS: Videotape and replay rights yearly: RETAC

CHANNEL: 8
DATE AND TIME: Tues. 10:30 am
Weds. 2:15 pm

SUMMARY: Filmed in the natural beauty of *On Golden Pond* country, at the 200-acre Squam Lake Science Center in New Hampshire, this series develops in young viewers an awareness of the wonders of the natural world around them. Louise McNamara explores the Center's fields, lakes and forests, introduces the animals that live there, and encourages students to sharpen their skills of observation, description and classification.

Title: *Introduction*

Program Description: A tour of the Science Center. Differences between living and non-living things. An owl, dragonfly and fossil are examined.

Week(s) of: 1/29
Program No: 1

Title: *Animals without Backbones*

Program Description: The concept of predator is introduced. Getting acquainted with earthworms and spiders.

Week(s) of: 2/5
Program No: 2

Title: *Insects*

Program Description: Six legs and three body parts: that's how to identify an insect, an important link in the ecological chain. Life cycle of a monarch butterfly.

Week(s) of: 2/12
Program No: 3

Title: *Fish*

Program Description: A rowboat ride on Squam Lake. An *up close* look at scales, gills and fins of various fish. A visit to the New England Aquarium.

Week(s) of: 2/19
Program No: 4

Title: *Frogs, Toads and Salamanders*

Program Description: Introducing amphibians that live part of their lives on land and part in the water.

Week(s) of: 2/26
Program No: 5

Title: *Turtles*

Program Description: Differences between box turtles and painted turtles. How they got their names. A look at a turtle's skeleton and a snapping turtle.

Week(s) of: 3/5
Program No: 6

Title: *Snakes*

Program Description: Like the Eastern Indigo (7 feet long), snakes have dry, scaly skin, scutes, scales and fangs.

Week(s) of: 3/12
Program No: 7

Title: *What Is a Bird?*

Program Description: Hooty, the great horned owl, displays his talons, facial discs and flight feathers. A canoe trip to a blue heron rookery.

Week(s) of: 3/19
Program No: 8

Title: *Mammals*

Program Description: Special characteristics of mammals. Randy, the baby raccoon and two newly born fawns make their debut.

Week(s) of: 3/26
Program No: 9

SCIENCE

Up Close and Natural (Cont'd.)

Title: *Winter at Squam Lake*

Program Description: How animals survive winter. What is camouflage, hibernation? A close look at deer's heavy winter coat.

Week(s) of: 4/2

Program No: 10

Title: *Life in the Winter Forest*

Program Description: Forest layers. Where animals live in winter. Visiting Boston's Science Museum.

Week(s) of: 4/23

Program No: 11

Title: *The Pond*

Program Description: Springtime brings new life to the pond: frogs, crayfish, minnows. Also, some animals that live on the pond's surface.

Week(s) of: 4/30

Program No: 12

(Call in only) 4/9

Title: *Marsh and Swamp*

Program Description: Marsh dwellers: ducks, muskrats, blue herons. Marsh and swamp are compared. A visit to a beaver dam. What is a food chain?

Week(s) of: 5/7

Program No: 13

Title: *In the Field*

Program Description: The kestrel, a swift bird of prey, a woodchuck, a fox kit and a skunk are features

Week(s) of: 5/14

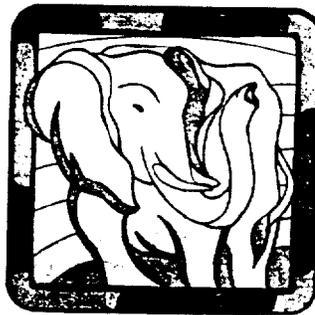
Program No: 14

Title: *Outside Your Door*

Program Description: How to be a backyard naturalist. Creatures close to home: millipedes, bees, spiders, centipedes and birds.

Week(s) of: 5/21

Program No: 15



SCIENCE (MATH)

Voyage of the Mimi II (aka: second voyage)

SUBJECT: Science/Math
GRADES: 4-10
NUMBER OF SERIES: 24 Programs
MINUTES: 15 minutes (PBS, 1988)
OTHERS: Videotape and replay rights yearly; RETAC (State buy)

CHANNEL: 8
DATE AND TIME: Weds. 11:15 am
 Thurs. 11:15 (different lessons)

SUMMARY: The Mimi, a turn-of-the-century French tuna trawler converted into an ocean-going scientific research vessel, and her crew are wintering off Mexico's Yucatan Peninsula where they are chartered by a team of archaeologists intent on studying the ancient Mayan civilization. The ensuing sail turns into an action adventure story that challenges the captain and crew to learn and apply numerous mathematical and scientific concepts in order to foil a group of unscrupulous looters.

For information on computer software, videodiscs, wall charts, and print material contact: Sunburst Company, 101 Castleton St., P.O. Box 100, Pleasantville, NY 10570-9963, 800/321-7511.

Title: *A Charter to the Past*
 Week(s) of: 9/11 1/29
 Program No: 1

Title: *If I Can Do This...*
 Week(s) of: 9/11 2/5
 Program No: 2

Title: *A Tomb in the Jungle*
 Week(s) of: 9/18 2/5
 Program No: 3

Title: *Sweating It Out*
 Week(s) of: 9/18 2/12
 Program No: 4



Title: *A Light in the Dark*
 Week(s) of: 9/25 2/12
 Program No: 5

Title: *As the Earth Turns*
 Week(s) of: 9/25 2/19
 Program No: 6

Title: *The Underworld*
 Week(s) of: 10/2 2/19
 Program No: 7

Title: *The Incredible Shrinking Head*
 Week(s) of: 10/2 2/26
 Program No: 8

Title: *A Stone Puzzle*
 Week(s) of: 10/9 2/26
 Program No: 9

Title: *Feeling the Pressure*
 Week(s) of: 10/9 3/5
 Program No: 10

Title: *Cracking the Code*
 Week(s) of: 10/16 3/5 4/30
 Program No: 11

Title: *Written in Stone*
 Week(s) of: 10/16 3/12 5/7
 Program No: 12

Title: *The Quest Begins*
 Week(s) of: 10/23 3/12 5/7
 Program No: 13

Title: *An Ancient Farm*
 Week(s) of: 10/23 3/19 5/14
 Program No: 14

Title: *A Road to Danger*
 Week(s) of: 10/30 3/19 5/14
 Program No: 15

Title: *A Scorpion Tale*
 Week(s) of: 10/30 3/26 5/21
 Program No: 16

SCIENCE (MATH)

Voyage of the Mimi II [aka: second voyage] (Cont'd.)

Title: *A Friendly Village*

Week(s) of: 11/6 12/11 3/26 5/21

Program No: 17

Title: *Curandera*

Week(s) of: 11/6 1/8 4/2 5/28

Program No: 18

Discoveries

Week(s) of: 11/13 1/8 4/2 5/28

Program No: 19

(Call in only) 11/20

Title: *Up a Tree*

Week(s) of: 11/13 1/15 4/23 6/4

Program No: 20

Title: *Found and Lost*

Week(s) of: 11/27 1/15 4/23 6/4

Program No: 21

Title: *In a Canopy*

Week(s) of: 11/27 1/22 4/30

Program No: 22

Title: *The Fate of a King*

Week(s) of: 12/4 1/22 4/30

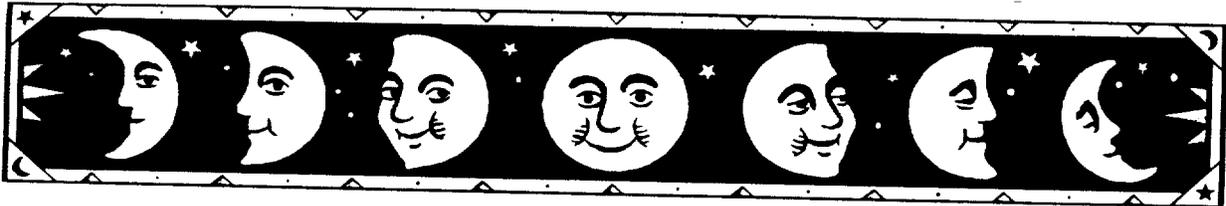
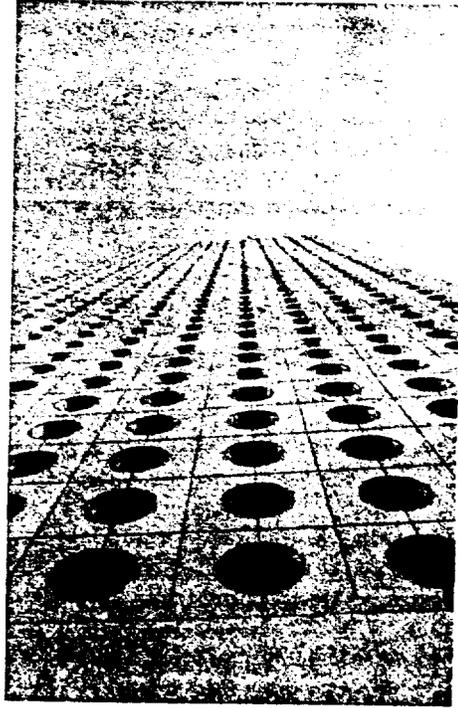
Program No: 23

(Call in only) 4/9

Title: *One Stone at a Time*

Week(s) of: 12/4 1/29 5/7

Program No: 24



SCIENCE (TECH. / CAREERS)

What's in the News: Space

SUBJECT: Science/Social
Science/Technology/Careers
GRADES: 4-7
NUMBER OF SERIES: 12 Programs
MINUTES: 15 minutes, Closed Captioned (ITS and
Penn State University)
OTHERS: Videotape and replay rights
yearly; RETAC

CHANNEL: 8
DATE AND TIME: Thurs. 10:30 am
Fri. 11:45 am

SUMMARY: The series provides accurate and interesting information about the space sciences and their applications as relevant and important human activities in a historical context. The programs are organized around three principal themes: 1 - To be human is to explore and discover; 2 - In earth's orbit and beyond - people, science and technology; 3 - Images of earth - communications, information and perspectives. The programs provide a basis for:

- Exploring connections between space sciences and the work and interests of people in multiple walks of life;
- Enhanced understanding of concepts of science and technology;
- Enhanced understanding of the nature of science and technology in the context of human history;
- Stimulating consideration of careers in science, technology and other space related vocations;
- Enlightened citizenship in a scientific age when we are just beginning to explore beyond planet Earth;
- Sensing the excitement and the importance of continuing inquiry and exploration in the space sciences -- specifically and in human experience more generally.

Title: *Introduction: History
of Space Flight*

Week(s) of: 2/19 5/28
Program No: 1

Title: *Astronomy*

Week(s) of: 2/26 6/4
Program No: 2

Title: *Gravity*

Week(s) of: 3/5 6/11
Program No: 3

Title: *Space Shuttle*

Week(s) of: 3/12
Program No: 4

Title: *Teamwork*

Week(s) of: 3/19
Program No: 5

Title: *Ecosystems*

Week(s) of: 3/26
Program No: 6

Title: *Living in Space*

Week(s) of: 4/2
Program No: 7

Title: *Working in Space*

Week(s) of: 4/23
Program No: 8

Title: *Communications Satellites*

Week(s) of: 4/30
Program No: 9

(Call in only) 4/9

